Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

# ENVIRONMENTAL ASSESSMENT
**For Routine Actions with Limited Environmental Impact**

## Part I. Proposed Action Description

1. Applicant/Contact name and address:

   Mark Kearney and Brenda O'Shea
   1807 Sheridan Ave
   Cody, WY 82414-3886

2. Type of action: Application for Beneficial Water Use Permit No. 43B 30105669. The Applicant has installed a well and proposes to appropriate up to 32 gallons per minute (GPM) and up to 1 acre-feet (AF) per year of water within the Yellowstone Controlled Groundwater Area (YCGA).

3. Water source name: Groundwater. The well is located on the Applicant's property and is approximately 730 feet from Soda Butte Creek.

4. Location affected by project: NENENW, Section 34, T09 S, R14 E, Park County. The well is located at 188 U.S. Highway 212 West, Cooke City, Montana. This is private property owned by the Applicant in a rural neighborhood within the town of Cooke City. (See Figure 1 for a map on the next page.)

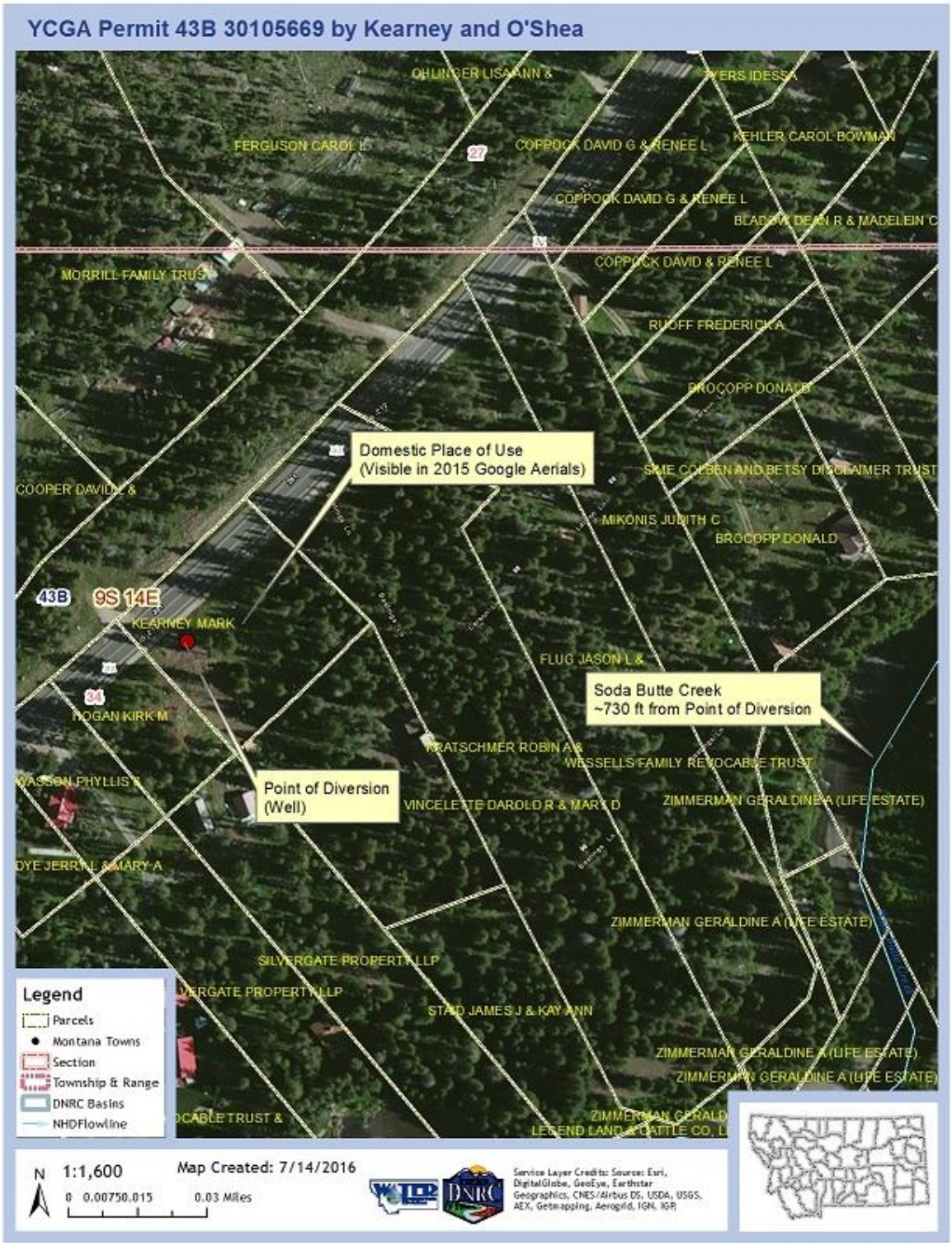


**Figure 1:** Map of the project area.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to pump a maximum of 32 GPM not to exceed 1 AF per year of water for the domestic use of one house from January 1 to December 31 of every year. The well is located on private property in Cooke City and is located within the YCGA. The water from this well measured 38 degrees Fahrenheit at the wellhead and had a specific conductance of 288 micromhos when a sample was later tested at the Bozeman DNRC office.

   The National Park Service received notification of this application. No response was received.

6. Agencies consulted during preparation of the Environmental Assessment:
   - Montana Department of Fish, Wildlife & Parks (DFWP) – Montana Fisheries Information System (MFISH)
     - http://fwp.mt.gov/fishing/mFish/
   - Montana Department of Environmental Quality (DEQ) – Clean Water Act Information Center (CWAIC)
     - http://deq.mt.gov/wqinfo/CWAIC/default.mcpx
   - Montana National Heritage Program (MTNHP) – Species of Concern:
     - http://mtnhp.org/SpeciesOfConcern
   - U.S. Fish & Wildlife Service (USFWS) – National Wetlands Inventory Wetlands Mapper
     - http://www.fws.gov/wetlands/Data/Mapper.html
   - Natural Resource Conservation Service (NRCS) – Web Soil Survey (WSS)
     - http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

## Part II. Environmental Review

### 1. Environmental Impact Checklist:

## PHYSICAL ENVIRONMENT

**WATER QUANTITY, QUALITY AND DISTRIBUTION**

***Water quantity*** **-** *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

*Determination*: No significant impact.

The source of water is groundwater. However, the well is located approximately 730 feet from Soda Butte Creek. As determined by a search of MFISH, conducted on December 12, 2016, Soda Butte Creek is not listed as chronically or periodically dewatered by DFWP. The well's proposed flow rate of 32 GPM and annual volumetric usage of 1 AF will not have a significant impact on nearby surface water flow or water users.

***Water quality*** **-** *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

*Determination:* No impact.

The source of water is groundwater, which is not listed by the Montana Department of Environmental Quality (DEQ) on the CWAIC website. Adjacent surface water quality is not likely to be affected by the proposed well, as Douglas Drilling, a licensed driller (license number WWC-591), has constructed the well in accordance with the rules of the Board of Water Well Contractors.

DEQ lists the nearby stretch of Soda Butte Creek, from the McLaren Tailings to the Wyoming border, as fully supporting primary contact recreation and not supporting aquatic life. This stretch has not been assessed for drinking water or agricultural use. DEQ lists impairments of aquatic life due to copper, iron, lead, and manganese from acid mine drainage and mine tailings. DEQ work to remediate the McLaren Tailings and affected reaches of Soda Butte Creek is ongoing as of this Environmental Assessment. This well is unlikely to impact the surface water quality.

***Groundwater*** **-** *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

*Determination*: No significant impact.

The source of water is groundwater. Groundwater quality is not likely to be affected by the proposed well, as Douglas Drilling, a licensed driller, has constructed the well in accordance with the rules of the Board of Water Well Contractors.

The well is located approximately 730 feet from nearby surface water in Soda Butte Creek, but the proposed 32 GPM and 1 AF per year are not likely to have a significant impact on surface water flows, nor are they likely to have a significant impact on nearby water right owners. Water use will be measured with a meter supplied by DNRC.

The U.S. National Park Service has been notified of this application pursuant to the State of Montana/U.S. National Park Service Compact, Article II, Section B.2.b.ii.3.(b).

**DIVERSION WORKS** **-** *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

*Determination*: No significant impact.

Water will be diverted using a well with a pump, and use will be measured using a meter supplied by DNRC. Douglas Drilling, a licensed driller, has constructed the well in accordance with the rules of the Board of Water Well Contractors. The diversion works should not create

significant channel impacts, flow modifications, or barriers. No significant impacts to existing resources have been identified.

**UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

*Determination*: No significant impact.

A search of the MTNHP Species of Concern website conducted on December 12, 2016, returned the following results:

- 7 animal Species of Concern: Bison, Wolverine, Canada Lynx, Grizzly Bear, Cassin's Finch, Clark's Nutcracker, Yellowstone Cutthroat Trout.
- 0 animal Potential Species of Concern.
- 0 animal Special Status Species.
- 3 plant Species of Concern: Moonworts, Whitebark Pine, Thick-leaf Whitlow-grass.
- 1 plant Potential Species of Concern: Electric Peak Larkspur.
- 0 plant Special Status Species.

As this proposed application is to divert water from a well located on private property, no significant impacts will occur to threatened, endangered, or special concern species. The pumping of groundwater will not decrease surface water flows to significantly impact any of these species.

***Wetlands*** *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

*Determination*: Not applicable.

According to a December 12, 2016, search of the USFWS Wetlands Mapper, no wetlands exist in the area. No wetlands are involved in the project.

***Ponds*** *- For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

*Determination*: Not applicable.

No ponds are involved in the project.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

*Determination*: No significant impact.

This well has been constructed by Douglas Drilling, a licensed driller, in accordance with the rules of the Board of Water Well Contractors, so there should not be significant impacts on nearby streambanks and vegetative cover. Use of water will continue in a manner consistent with locally accepted, historic practices and will not significantly impact soil quality. The NRCS Soil Survey website, queried on December 12, 2016, did not have any available information for this location.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

*Determination*: No significant impact.

This well has been constructed by Douglas Drilling, a licensed driller, in accordance with rules of the Board of Water Well Contractors, so there should not be significant impacts on nearby vegetative cover. A small area was disturbed by drilling the well, but this should have no significant impact on the surrounding area's vegetative cover and neither should it allow the establishment of noxious weeds. Under Montana law, owners are responsible for noxious weed control on their property.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

*Determination*: No impact.

No deterioration of air quality will result from the drilling of this well or diversion of water from it.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

*Determination*: Not applicable.

The project is not located on State or Federal Lands. Furthermore, the Applicant made no mention of significant historical or archeological sites on the property.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

*Determination*: No impact.

No other demands on environmental resources of land, water, and energy are anticipated.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination*: No significant impact.

Drilling wells for water supply and using water for domestic purposes are locally accepted practices within the state of Montana and the Cooke City-Silver Gate area.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

*Determination*: No impact.

Significant recreational and wilderness activities exist in the area, but the proposed project is located on small parcel of private property in a rural neighborhood and will not impact access to or the quality of recreational and wilderness activities.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

*Determination*: No significant impact.

The water will be used to supply one home for domestic purposes. A March 2011 DEQ Fact Sheet entitled "Individual Drinking Water Wells – Water Quality Monitoring & Treatment" notes that water quality from individual drinking water wells is monitored only by the owner and is "generally not subject to any drinking water standards." The Applicant maintains sole responsibility for testing and treatment of water for any and all domestic purposes.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination*: The project does not impact government regulations on private property rights.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

*(a) Cultural uniqueness and diversity?* No impacts identified.

(*b) Local and state tax base and tax revenues?* No significant impacts identified.

*(c) Existing land uses?* No significant impacts identified.

(*d) Quantity and distribution of employment?* No impacts identified.

*(e) Distribution and density of population and housing?* No significant impacts identified.

*(f) Demands for government services?* No significant impacts identified.

*(g) Industrial and commercial activity?* No impacts identified.

*(h) Utilities?* No impacts identified.

*(i) Transportation?* No impacts identified.

*(j) Safety?* No impacts identified.

*(k) Other appropriate social and economic circumstances?* No impacts identified.

**2.** ***Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts: No secondary impacts have been identified.

Cumulative Impacts: No cumulative impacts have been identified.

**3.** ***Describe any mitigation/stipulation measures:*** No mitigation or stipulation measures are anticipated at this time.

**4.** ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** If the Applicant is not allowed to divert water from the existing well, they may not be able to supply their home with water for domestic purposes. Since the property is located in a rural region, they may not be able to connect to a municipal system, but they may be able to haul water in. The no action alternative would be not to divert water from the well, which could leave the Applicant's house without a reliable supply of domestic water.

*PART III. Conclusion*

***1.*** ***Preferred Alternative:*** The preferred alternative is to obtain a water right permit to use the drilled well.

***2*** ***Comments and Responses:*** None at this time.

**4.** ***Finding:***
*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

*If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action:* The EA is the appropriate level of analysis because the proposed project is to drill a small groundwater well in the YCGA for the domestic use of one house, which is a locally accepted practice. No significant impacts are anticipated. None of the identified impacts for any of the alternatives is significant as defined in ARM 36.2.524.

*Name of person(s) responsible for preparation of EA:*

*Name:* Brent Zundel
*Title:* Hydrologist/Water Resource Specialist
*Date*: December 15, 2016